

ABSTRACT

A potentiometric sensor for wellbore applications having a

5 permanent aqueous contact between measuring and reference
electrode, whereby contact is ensured by discharging the
internal solution from the reference electrode directly onto a
measuring (ion-sensitive) membrane and protecting the reference
junction of the reference electrode with water wet porous

10 material, such as sintered glass. It is advantageously applied
to oil-water mixtures under high pressure and/or temperature.